

Title (en)
Liquid crystal panel including antiferroelectric liquid crystal and process for producing the same

Title (de)
Flüssigkristalltafel mit antiferroelektrischem Flüssigkristall und Verfahren zu ihrer Herstellung

Title (fr)
Panneau à cristal liquide contenant un cristal liquide antiferroélectrique et son procédé de fabrication

Publication
EP 0724182 B1 20020605 (EN)

Application
EP 96300498 A 19960124

Priority
JP 2759395 A 19950124

Abstract (en)
[origin: EP0724182A2] Striped electrodes 4, 5 are formed on upper and lower substrates 2, 3, respectively, and a vast plurality of partition members 8 are formed in a striped fashion so that a vast plurality of sealed linear interstices R, each having a rectangular section, are formed in mutually parallel relationship between the substrates 2, 3. The upper-side rubbing direction A1 crosses the lower-side rubbing direction A2 at a predetermined angle, and the direction of extension K of each of the partition members 8 is caused to fall within the above cross angle. An antiferroelectric liquid crystal is infiltrated in the linear interstices R, and the liquid crystal panel is cooled while proceeding from one end of the linear interstices R to the other end thereof. A liquid crystal panel structure for antiferroelectric liquid crystal is provided which has excellent antishock and impact resisting properties. The layer normal direction of liquid crystal molecular layer becoming irregular between the upper and lower substrates is prevented by the employment of the cross rubbing method to thereby avoid the occurrence of defects in the liquid crystal. Further, the occurrence of zigzag defects is prevented by controlling the infiltration of the antiferroelectric liquid crystal and also controlling the cooling. <IMAGE>

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IPC 8 full level
G02F 1/137 (2006.01); **G02F 1/1337** (2006.01); **G02F 1/1339** (2006.01); **G02F 1/141** (2006.01)

CPC (source: EP KR US)
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